

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): An antireflection film ~~to be formed on at least one surface of a substrate~~, comprising

a high refractive index layer formed of a first coating composition in the cured state wherein said first coating composition primarily comprising comprises (A) metal oxide fine particles comprising at least one oxide selected from the group consisting of titanium oxide, aluminum oxide, zirconium oxide, cerium oxide, iron oxide, tin oxide, and compound oxides thereof, ~~and having~~ wherein said metal oxide has an average particle size of 1 to 500 nm, and (B) a compound having in a molecule at least one group of at least one type selected from the class group consisting of an acrylic, methacrylic, vinyl and styryl group, and/or (C) a compound having in a molecule at least two groups of at least one type selected from the class group consisting of an epoxy and oxetane group, and

a low refractive index layer formed of a second coating composition in the cured state wherein said second coating composition primarily comprising comprises (D) silica-base inorganic oxide fine particles having void in the interior and having an average particle size of 1 to 500 nm, and (B) a compound having in a molecule at least one group of at least one type selected from the class group consisting of an acrylic, methacrylic, vinyl and styryl group, and/or (C) a compound having in a molecule at least two groups of at least one type selected from the class group consisting of an epoxy and oxetane group,

wherein said high refractive index layer and said low refractive index layer ~~being~~ are successively stacked, and

wherein each of said first and said second coating compositions further comprises at least one ingredient selected from the group consisting of (E) a radical initiator and (G) a photoacid generator.

Claim 2 (currently amended): The antireflection film of claim 1, ~~comprising~~ which comprises

a high refractive index layer formed of a first coating composition in the cured state wherein said first coating composition primarily comprising comprises (A) metal oxide fine particles comprising at least one oxide selected from the group consisting of titanium oxide, aluminum oxide, zirconium oxide, cerium oxide, iron oxide, tin oxide, and compound oxides thereof, ~~and having~~ wherein said metal oxide has an average particle size of 1 to 500 nm, and (B) a compound having in a molecule at least one group of at least one type selected from the ~~class~~ group consisting of an acrylic, methacrylic, vinyl and styryl group, and

a low refractive index layer formed of a second coating composition in the cured state wherein said second coating composition primarily comprising comprises (D) silica-base inorganic oxide fine particles having void in the interior and having an average particle size of 1 to 500 nm, and (C) a compound having in a molecule at least two groups of at least one type selected from the ~~class~~ group consisting of an epoxy and oxetane group,

wherein said high refractive index layer and said low refractive index layer ~~being~~ are successively stacked.

Claim 3 (currently amended): The antireflection film of claim 1 wherein said component (B) is a compound having at least two acrylic groups in a molecule.

Claim 4 (currently amended): The antireflection film of claim 1 wherein said component (B) is a compound having at least two acrylic groups and a benzene ring in a molecule.

Claim 5 (currently amended): The antireflection film of claim 1 wherein said component (C) is a compound having at least two 3,4-epoxycyclohexyl groups in a molecule.

Claim 6 (currently amended): The antireflection film of claim 1 wherein said component (C) is a silicone compound ~~containing~~ which contains at least two $-R^1CH_3SiO-$ units, ~~[[()]]~~ wherein R^1 is a substituent group ~~having~~ which contains a 3,4-epoxycyclohexyl group~~[[()]]~~, said silicone compound having a molecular weight of 500 to 2,100 and an epoxy equivalent of 180 to 270, and being free of an alkoxy group.

Claim 7 (canceled).

Claim 8 (currently amended): The antireflection film of claim 7 1 wherein ~~the~~ said photoacid generator (G) has the formula: $R^4_2I^+X^-$ wherein R^4 is $-C_6H_4-R^5$, R^5 is an alkyl group having at least 6 carbon atoms, and X^- is SbF_6^- , AsF_6^- , PF_6^- , BF_4^- , HSO_4^- , ClO_4^- , Cl^- or $CF_3SO_3^-$.

Claim 9 (currently amended): The antireflection film of claim 1 wherein ~~the~~ said first and second coating compositions have been cured by irradiating them with actinic energy radiation.

Claim 10 (original): An antireflection film-bearing article having the antireflection film of claim 1 formed on at least one surface of a substrate.

Claim 11 (currently amended): A method for preparing an antireflection film-bearing article, ~~comprising the steps of~~ which comprises:

applying a first coating composition as set forth in claim 1 which further ~~containing~~ comprises (E) a radical initiator and optionally (F) a first solvent onto at least one surface of a substrate, to obtain a coating of said first coating composition;

irradiating ~~the~~ said coating of said first coating composition with actinic energy radiation to form a first cured film[[,]];

applying a second coating composition as set forth in claim 1 which further ~~containing~~ comprises (G) a photoacid generator and optionally (H) a second solvent onto ~~the~~ said first cured film, to obtain a coating of said second coating composition; and

irradiating ~~the~~ said coating of said second coating composition with actinic energy radiation to form a second cured film.

Claim 12 (currently amended): A method for preparing an antireflection film-bearing article, ~~comprising the steps of~~ which comprises:

applying a second coating composition as set forth in claim 1 which further ~~containing~~ comprises (G) a photoacid generator and optionally (H) a second solvent onto one surface of a temporary substrate optionally having a strippable layer formed thereon, to obtain a coating of said second coating composition;

irradiating ~~the~~ said coating of said second coating composition with actinic energy radiation to form a second cured film[[,]];

applying a first coating composition as set forth in claim 1 which further ~~containing~~ comprises (E) a radical initiator and optionally (F) a first solvent onto ~~the~~ said second cured film, to obtain a coating of said first coating composition;

irradiating ~~the~~ said coating of said second coating composition with actinic energy radiation to form a first cured film, and to obtain a laminate;

attaching ~~the resulting~~ said laminate to a substrate using an adhesive or pressure-sensitive adhesive[[,]]; and

stripping ~~the~~ said temporary substrate.

Claim 13 (currently amended): A laminate ~~for forming an antireflection film bearing article,~~ which is prepared by

applying a second coating composition as set forth in claim 1 which further ~~containing~~ comprises (G) a photoacid generator and optionally (H) a second solvent onto one surface of a temporary substrate optionally having a strippable layer formed thereon, to obtain a coating of said second coating composition;

irradiating ~~the~~ said coating of said second coating composition with actinic energy radiation to form a second cured film[[,]];

applying a first coating composition as set forth in claim 1 which further ~~containing~~ comprises (E) a radical initiator and optionally (F) a first solvent onto the second cured film, to obtain a coating of said first coating composition;

irradiating ~~the~~ said coating with actinic energy radiation to form a first cured film[[,]]; and

forming an adhesive or pressure-sensitive adhesive layer on ~~the~~ said first cured film ~~for allowing the film to be subsequently attached to a substrate.~~

Claim 14 (new): The antireflection film-bearing article of claim 10, wherein said antireflection film comprises

a high refractive index layer formed of a first coating composition in the cured state wherein said first coating composition primarily comprises (A) metal oxide fine particles comprising at least one oxide selected from the group consisting of titanium oxide, aluminum oxide, zirconium oxide, cerium oxide, iron oxide, tin oxide, and compound oxides thereof, wherein said metal oxide has an average particle size of 1 to 500 nm, and (B) a compound having in a molecule at least one group of at least one type selected from the group consisting of an acrylic, methacrylic, vinyl and styryl group, and

a low refractive index layer formed of a second coating composition in the cured state wherein said second coating composition primarily comprises (D) silica-base inorganic oxide fine particles having void in the interior and having an average particle size of 1 to 500 nm, and (C) a compound having in a molecule at least two groups of at least one type selected from the group consisting of an epoxy and oxetane group,

wherein said high refractive index layer and said low refractive index layer are successively stacked.

Claim 15 (new): The antireflection film-bearing article of claim 10, wherein said component (B) is a compound having at least two acrylic groups in a molecule.

Claim 16 (new): The antireflection film-bearing article of claim 10, wherein said component (B) is a compound having at least two acrylic groups and a benzene ring in a molecule.

Claim 17 (new): The antireflection film-bearing article of claim 10, wherein said component (C) is a compound having at least two 3,4-epoxycyclohexyl groups in a molecule.

Claim 18 (new): The antireflection film-bearing article of claim 10, wherein said component (C) is a silicone compound which contains at least two $-R^1CH_3SiO-$ units, wherein R^1 is a substituent group which contains a 3,4-epoxycyclohexyl group, said silicone compound having a molecular weight of 500 to 2,100 and an epoxy equivalent of 180 to 270, and being free of an alkoxy group.

Claim 19 (new): The antireflection film-bearing article of claim 10, wherein said photoacid generator (G) has the formula: $R^4_2I^+X^-$ wherein R^4 is $-C_6H_4-R^5$, R^5 is an alkyl group having at least 6 carbon atoms, and X^- is SbF_6^- , AsF_6^- , PF_6^- , BF_4^- , HSO_4^- , ClO_4^- , Cl^- or $CF_3SO_3^-$.